Improving Existing Surveillance Methods

Tuberculosis (TB) is a reportable disease in the State of Wisconsin. The identification and reporting of TB cases, suspected cases and contacts is sometimes delayed and incomplete. This can result in transmission of TB and delayed treatment of latent TB infection (LTBI). Reporting TB cases in Wisconsin must be timely, accurate and complete so that patients can receive appropriate TB treatment and potential outbreaks can be prevented.

To address this, health care providers, local health departments (LHDs), laboratories and human service agencies in Wisconsin must be aware of the signs and symptoms of tuberculosis, reporting criteria and the process of reporting suspect and active tuberculosis cases.

TB Surveillance is the ongoing systematic collection, analysis, and dissemination of data on the magnitude and distribution of TB. This information determines the most beneficial use of scarce resources and promotes effective interventions. The development of new data collection tools and information networks are critical components in enhancing surveillance.

For Improving Existing Surveillance Methods, the following goals have been established:

- Identify TB suspects early
- Ensure immediate reporting of each TB case and suspect case to the local health officer or the TB program.
- Identify any outbreak or any other unusual occurrence of TB disease in Wisconsin
- Target surveillance for TB infection and disease

Goal 1: Identify TB suspects early

OBJECTIVE 1:
At least 95% of persons reported with TB disease or suspect TB will have been identified and referred for tuberculosis related medical evaluation within 72 hours of initial contact with a health care provider or any other identified in the action steps that follow.

Action steps:
1. The Wisconsin TB Program will revise the TB Suspect Case Data form and distribute it to all LHDs. Distribution of and training for the revised TB Suspect Case Data form will be completed by January 2001.

2. Beginning in January 2001, LHDs will collect the information needed to complete the revised TB Suspect Case Data form and report all the data elements to the Wisconsin TB Program.

3. The Wisconsin TB Program will periodically review the data from the TB Suspect Case Data form to determine:
    - whether the case was reported in a timely manner,
    - whether the case preventable,
    - where efforts should be targeted to enhance prompt referral and out reach education.

4. Outreach and education strategies will be prioritized and re-prioritized according to this data review. Targets for education include the following:
    - physicians, physician assistants, nurse practitioners, nurses, employee health and infection control practitioners
    - clinics, hospitals and health centers that serve populations at risk for TB
    - human services agencies that serve populations at risk for TB
    - cultural and business organizations that support or employ persons at risk for TB and/or Community Based Organizations (CBOs) that may have access to these populations.

5. By March 2000 and periodically, the American Lung Association of Wisconsin (ALA/W) and the Wisconsin TB Program will sponsor a physician TB education seminar to include early identification and management of tuberculosis.

6. Beginning in 2001, the Wisconsin TB Program (and LHDs when appropriate) will work with the ALA/W to develop a plan for educating business and government leaders about TB.

7. The Wisconsin TB Program will continue to review the contract between the Wisconsin Division of Health Care Financing and health maintenance organizations (HMOs) to ensure that the highest standards for TB reporting and care are maintained.

8. The Wisconsin TB Program with the ALA/W will evaluate the need for physician advocacy for quality TB care in HMO clinics and hospitals.

Goal 2: Ensure immediate reporting of each TB case and suspect case to the local health officer or the TB Program

OBJECTIVE 1:
The local health officer or the Wisconsin TB Program will receive at least 95% of all TB suspect case reports within 24 hours when one or more of the following indicators are present:

- a prescription is written for two or more tuberculosis drugs to be taken for period of more than 2 months
- clinical signs and symptoms (such as a chest radiograph) suggest tuberculosis disease or
- a smear is positive for acid fast bacilli (AFB) in a patient with no previous history of a non-tuberculosis mycobacteria.

Action steps:

1. The Wisconsin TB Program will regularly review with LHDs reporting criteria, the statutory power of the local health officer and the importance of timely reporting.

2. LHDs will educate area health care providers of reporting criteria, the statutory requirements of reporting to the local health officer and the importance of timely reporting.

3. The LHD and the Wisconsin TB Program will make copies of the Wisconsin Communicable Disease Statutes available to all health care providers.

4. The Division of Public Health will continue to distribute communicable disease report forms (DPH 4151) to health care providers in Wisconsin.

5. Wisconsin TB Program and LHD staff will routinely monitor the time between the diagnosis of tuberculosis and the date the case is reported to the local health department and the Wisconsin TB Program. Delays in reporting of more than 2 work days will be discussed with health care providers by the local health officer (or their designee) within one week after the delay is noted. The local health officer will address appropriate action by the provider to prevent similar delays in the future. If deemed necessary, the local health officer may take legal action as specified in s. 252.05 (11) of the Wisconsin State Statutes.

6. Educational presentations on tuberculosis at the state and local level will contain reporting information.

7. The Wisconsin TB Program will work with Division of Public Health, Bureau of Communicable Diseases in the development of an integrated database that may allow the electronic reporting of suspects.

OBJECTIVE 2:
The Wisconsin TB Program, using the CDC reporting system, will report all newly diagnosed cases of TB to CDC. There will be at least 95% completeness for CDC selected variables.

Action steps:
1. Required data elements of the Report of Verified Case of Tuberculosis (RVCT) form (pages one, two and the initial drug susceptibility report) will be completed by the LHD and entered into the TIMS database by the central office within 2 months after a case has been counted by the Wisconsin TB Program.

2. The case completion report will be completed and verified by the local health department and entered into the TIMS database by the Wisconsin TB Program within one month after an individual discontinues treatment.

3. Quarterly data analysis will be done by the Wisconsin TB Program to verify that all TB cases have all the required information completed.

OBJECTIVE 3:
The Wisconsin TB Program and LHDs will actively work with infection control practitioners (ICPs) in Wisconsin health care facilities to promote the most current TB prevention/education standards within their facilities and in their shared communities.

Action steps:
1. Relevant components of the Strategic Plan for the Elimination of Tuberculosis in Wisconsin will be presented at chapter meetings of the Association for Professional in Infection Control and Epidemiology (APIC) by a TB Program representative beginning in May 1, 2000.

2. Beginning no later than June 1, 2000, a representative from the Wisconsin TB Program will offer “TB Updates” to regional and statewide meetings of APIC.

3. By January 1, 2001, staff from the Wisconsin TB Program will serve as the key contact person at the state level for infection control practitioners regarding infection control and TB.

4. The Wisconsin TB Program will strongly encourage enhanced communication, technical assistance and education between LHDs and local ICPs.

5. The Wisconsin TB Program will encourage a LHD representative to periodically attend local APIC chapter meetings by January 2002.

Goal 3: Identify any outbreak or any other unusual occurrence of TB disease in Wisconsin

OBJECTIVE 1:
The Wisconsin State Laboratory of Hygiene (WSLH) with the cooperation of Mycobacteriology Laboratory Network (MLN) will perform DNA fingerprinting on 95% of initial TB isolates within 4 months of receipt.

Action steps:
1. WSLH will continue to organize annual meetings of the MLN.

2. By January 2001, 95% of clinical labs in Wisconsin that provide TB mycobacterial services will be active participants in the MLN.

3. WSLH will begin making onsite visits to other microbiology labs by July 2001.

4. By January 1, 2001 all TB isolates will be forwarded to WSLH from other microbiology labs within 10 days of identification.

5. By July 1, 2001, the WSLH will be able to perform appropriate DNA fingerprinting on TB isolates.

6. All initial TB isolates received by WSLH will have DNA fingerprinting by January 1, 2002.

OBJECTIVE 2:
All unusual occurrences of TB disease in Wisconsin will be investigated using all available resources to define epidemiological and relational links.

Action steps:
1. The Wisconsin TB Program will analyze data at least annually to identify and define an unusual occurrence of TB.

2. Refer to Improving Existing Surveillance Methods, goal 3, action steps 1 though 6 (p.18).

3. Refer to Improving Case Prevention Methods goals and action steps (p.35 - 37).

4. Refer to Improving Existing Surveillance Methods goal 4, action steps 1 through 5 (p.19).

Goal 4: Target surveillance for TB infection and disease

OBJECTIVE 1:
All diagnosed cases of active tuberculosis disease will be reported to the Wisconsin TB Program.

Action steps:
1. Monthly the Wisconsin TB Program will continue to conduct TB and acquired immunodeficiency syndrome (AIDS) registry matches to ensure completeness of reporting of HIV and TB co-infected patients to both systems.

2. The WSLH will assist the Wisconsin TB Program in an annual evaluation of TB case reporting through MLN.

3. The Wisconsin TB Program will do death certificate queries by December 2002 to verify that any deceased person listed with a tuberculosis diagnosis matches with the cases reported.

4. The Wisconsin TB Program will evaluate the completeness of reporting by June 2003 by identifying and investigating at least one population-based secondary source (such as Medicaid billed services or pharmacy records) to find potentially unreported TB cases.

OBJECTIVE 2:
At least 80 % of people receiving skin testing by LHDs will have an identified medical or population risk factor.

Action steps:
1. The Wisconsin TB Program will provide training and education on the use of the Aggregate Reports for Tuberculosis Program Evaluation (ARPE) for program evaluation by December 2001.

2. The Wisconsin TB Program will provide training and guidance about targeted skin testing to all LHDs beginning in 2001. As a result of this training, LHDs will identify:
    - appropriate populations in their community needing targeted skin testing,
    - appropriate assessment methods for these populations (Mantoux skin testing, versus chest radiographs, symptom assess and education) and
    - where to best direct their resources to serve high risk populations.

    Follow-up will be done to evaluate the integration of this information into local health department planning.

3. The Wisconsin TB Program will begin distribution to LHDs of a simple-to-use,

computerized database, for evaluation of targeted testing and treatment of LTBI activities by December of 2001.

4. Beginning in 2002, LHDs will collate and analyze data annually on all skin tests placed by their agency using the ARPE.

5. Beginning with data collected in 2002, LHDs will analyze cumulative skin test data on a 5-year basis to determine trends.

OBJECTIVE 3:
LHDs will conduct appropriate surveillance for TB disease and LTBI.

Action Steps:
1. LHDs will periodically assess the prevalence, incidence and socio-demographic characteristics of active disease cases and infected persons in the community. Using these data, LHDs will initiate group-specific targeted testing in their areas.

2. Surveillance information will also be used by LHDs to:
    - develop primary prevention activities,
    - build community capacity for appropriate TB skin testing and any other manifestations of core public health functions of assurance and policy development.